

CLAIMS

What Is Claimed Is:

1 1. A printer cartridge comprising a series of magnetic elements selected to
2 counterbalance a series of magnetic elements on a printer, and each positioned to lie adjacent to a
3 corresponding magnetic field detecting switch on the printer, where the position of the magnetic
4 elements on the cartridge are located so as to change a condition of the corresponding magnetic field
5 detecting switch when the cartridge is inserted into the printer.

1 2. The printer cartridge of claim 1 wherein the magnetic field detecting switch
2 comprises a reed switch.

1 3. The printer cartridge of claim 1 wherein each magnetic field detecting switch
2 comprises an element of a cartridge identification code.

1 4. A printer cartridge identification system comprising:
2 a printer cartridge including a plurality of magnetic elements disposed adjacent a
3 plurality of magnetic field detecting switches located on a printer; and
4 a printer including a plurality of magnetic field detecting switches corresponding to
5 the plurality of magnetic elements on the printer cartridge, the magnetic field detecting switches
6 cooperating to define a printer cartridge identification code.

1 5. The printer cartridge identification system of claim 4 wherein the magnetic field
2 detecting switches comprise reed switches.

Sub 122
1 6. The printer cartridge identification system of claim 4 further comprising a fixed
2 magnet adjacent on the printer adjacent the magnetic field detecting switch for biasing the magnetic
3 field detecting switch in a first position.

1 7. The printer cartridge identification system of claim 6 wherein the magnetic elements
2 on the printer cartridge are of a size and strength to counterbalance the fixed magnets on the printer
3 when the cartridge is located in the printer.

1 8. A printer cartridge identifying printer comprising:
2 a magnetic field detecting switch located adjacent a printer cartridge port and
3 adapted to switch from a first position to a second position when a magnet on the printer cartridge is
4 brought in proximity with the magnetic field detecting switch; and
5 circuitry on the printer for evaluating the position of the magnetic field detecting
6 switch and determining whether the cartridge in the printer is of a specific type.

Sub 123
1 9. The printer of claim 8 further comprising a fixed magnetic element adjacent the
2 magnetic field detecting switch to bias the magnetic field detecting switch in a predetermined
3 position.

1 10. The printer of Claim 8 wherein the magnetic field detecting switch is a reed switch.

2 11. A method for identifying a printer cartridge comprising the steps of:
3 locating on the printer cartridge a plurality of magnetic elements;
4 locating on the printer a set of magnetic field detecting switches in proximity with
5 the magnetic elements on the printer cartridge;
6 providing the printer with circuitry to evaluate the position of the magnetic field
7 detecting switches, and identifying a printer based on the position of the
8 magnetic field detecting switches.

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